Washington Park Arboretum

BULLETIN

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Washington Park Arboretum

The Arboretum is a 230-acre dynamic garden of trees and shrubs, displaying internationally renowned collections of oaks, conifers, camellias, Japanese and other maples, hollies and a profusion of woody plants from the Pacific Northwest and around the world. Aesthetic enjoyment gracefully co-exists with science in this spectacular urban green space on the shores of Lake Washington. Visitors come to learn, explore, relax or reflect in Seattle's largest public garden.

The Washington Park Arboretum is managed cooperatively by the University of Washington Botanic Gardens and Seattle Parks and Recreation; the Arboretum Foundation is its major support organization.

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ON THE COVER: The mock orange cultivar *Philadelphus* 'Atlas' blooming in June near the Sorbus Collection at Washington Park Arboretum.

Celebrating Doris and Her Friends

Recently Randall Hitchin, Megan Meyer and I spent a magical day with some special Arboretum volunteers. We were not in the Arboretum, but on a field trip to see their personal gardens. Our hostesses were 15 members of volunteer Unit 5, founded in 1965, and named in honor of Margaret Mulligan, who was the wife of legendary Arboretum Director Brian Mulligan—and a great plantswoman in her own right. We all met on a sparkling spring day at the home of Dee Zimmerman and toured Dee's extensive garden and ogled her rhodys at their height of bloom. Next we went to Jeannine Bannick's and strolled her woodland garden and dunked madeleines in our tea in her sunny midcentury modern home. Then we were on to see Elizabeth Moses, whose garden tumbles down a ravine filled with rhodys, ferns and ornamental trees of every description, including a dove tree draped in hundreds of white bracts. Her home was designed by her husband, Allen, in a style that pays deep homage to Japanese architecture.

The tour of these homes and gardens was just a prelude to the real purpose of the day: celebrating the 90th birthday of one of their members, Doris Taggart. Doris is an Arboretum treasure, as rare as any of our exotic plant specimens. For many decades she has generously given talks at unit meetings on an astonishingly wide variety of topics (she offered 37 different talks in the most recent edition of our "speakers list"!). She has been everywhere, volunteering at the Pat Calvert Greenhouse and at our plant sales and at all the gatherings of Unit 5. Only very recently has she concluded that she must give up some of these activities.

As Megan, our volunteer resources manager, says of her, "I just love Doris. Her spirit is as large as her body is tiny." So, we from the Arboretum were privileged to join our volunteers—who had shared gardens and friendship and volunteering together for decades—in toasting and celebrating one of their group. We did it in the home and garden of another unit member, Doris's neighbor and good friend, Carolyn Cowan. We ended the day at Doris's own garden, seeing and hearing stories of the plants she has nurtured over nearly 50 years.

What I have come to love best about the Arboretum in the seven years that I have been on your staff is the deep sense of friendship and community that is shared by so many of the groups that support and sustain us with their time, commitment, financial support and, yes, spirit. Thank you Doris and friends for all of that you have given to us.

Cheers,

Paige Miller

Paige Miller, Executive Director,
Arboretum Foundation

GARDENING *on* OPPOSITE ENDS *of the* WEST COAST

By Robert Smaus

After I retired from 45 years of writing about gardening in California—first for "Sunset" magazine, and then for the "Los Angeles Times"—my wife and I moved four USDA climate zones and 1100 miles north to the Puget Sound region. Two of our kids had already made the move, and on visits we found nothing not to like. We loved having seasons—and rain—and there were all of these plants we had never grown.

Throughout my career, I had done my best to convince readers to grow things that liked Southern California's warm, dry Mediterranean climate, and not to bother with things they'd seen or read about in colder, wetter climates. But wouldn't it be fun to grow all those things I had cautioned against—rhododendrons, kalmias, peonies, bleeding hearts, lilies, meconopsis and a zillion others that thrive in the maritime Northwest? We'd still be on the West Coast, with its mild Pacific Ocean-dominated climate, but it would be cooler and wetter, and we'd be growing plants we knew little or nothing about. A new adventure!

On visits with our kids we saw amazing witch-hazels blooming in the middle of winter at the Washington Park Arboretum, and spectacular fall color in October. Visiting Meekerk and

ABOVE: The view from the author's front porch in late April, with *Rhododendron* 'Ken Janeck', *R.* 'Patty Bee' and *Daphne* 'Eternal Fragrance' above a little rock garden of sorts.

Whitney Gardens in May, when the rhododendrons were at their peak, pretty much sealed the deal. The Los Angeles house and its lovely garden went on the market.

We found a place in Kingston, on the Kitsap Peninsula, big enough for a serious garden. It had some mostly-grown Japanese maples and lots of carefully placed, moss-covered boulders (it had been the home of a talented stone mason) but little else—the perfect framework for our new garden in the Northwest. I've been working on it for a little over four years, mostly by myself, and it's been quite an adventure—so much to learn, and so much to do. Whew.

The "Bulletin" Editorial Board thought it might be fun and instructional to compare my gardening here to gardening in California. There are similarities—plants we both can grow. But there are also some big, and little, differences, as we'll see. I should sound a note of caution, however, which is that I haven't really gardened here for very long and that my observations and conclusions could be dead wrong. Most of the plants I've been growing are hardly new to many Northwest gardeners, but they were all new to me. I've made mistakes, plus I've really overplanted the place, but I wanted to see and actually grow all these plants because that's how I've always learned.

Weeds and Mulch

As mentioned, the key difference between Northwest and California gardening is in the climate. Californians think it rains all the time up here, but we've found that it mostly drizzles and stays overcast for months. Seattle is, apparently, the most overcast city in the U.S., but the region is certainly not the rainiest, especially for those of us in a bit of an Olympic rain shadow. Nonetheless, the climate shift has been stark! During our last year in LA, we had only two inches of rain *total* for the year, whereas Kingston's annual average is around 36 inches. The climate difference leads to very dramatic differences in the available plant palette, but also to more subtle dissimilarities. For instance,

ABOVE: A boulder outcrop in July, with *Lilium* 'America' and *Veronica* 'Darwin's Blue'.

BELOW: By August, perennials are taking over, with *Lilium* 'Caruso' in the foreground and *Helenium* 'Shain's Early Flowerer' and 'Feuersiegel' behind.

weeds here are nearly immortal, and hoeing simply doesn't work.

In California, if you hoe or pull a weed, it is dead—shriveled by the dry air or sizzled by the sun. Here weeds re-root overnight, and even if raked and piled, they continue to grow. Months later you'll find them happy as can be. And, weeds sprout almost continually. In garden beds, ferns and moss can be weeds (Californians have a hard time believing that); native firs, maples and cedars surround our garden, and we pull their seedlings up by the thousands; ajuga, European buttercups and columbines are weeds; and berries, mostly native salmonberries, come up everywhere. Dandelions and shot weed? OMG! Weeding, especially in a new garden, is much more work up here, but I'm sure I'm not telling you anything new. Then there are blackberries, holly, ivy and broom, but that's another story that often involves a nuclear option.

The first piece of advice I got was that every garden bed had to be covered in plants or mulched or I'd be buried in weeds, so I bought some mulch. The concept of *buying* mulch is also new, as is buying topsoil. We live within a few minutes of three topsoil places that sell mulch. There are more topsoil sources than supermarkets or drugstores near us. At first I brought home a yard of mulch at a time in a trailer, but this past fall I had eight yards delivered. Eight yards! That's a small mountain, and yet I ran out by mid-January.

Mulching is something I'm still learning about. In California we mostly mulch to conserve moisture, and you can easily make your own since composting is quick and a pile gets hot enough to kill weed seeds. Here I've used commercial compost to mulch garden beds, keeping a bucket handy for all the bits of plastic and garbage bags that get ground up with the rest of the ingredients. I also use wood chips for some paths and around new trees, and "hog fuel" for large areas where I'm waiting for shrubs to fill in. I'm still experimenting with when to mulch, how deep it should

be, and what to use. This past year I thought I'd get a jump on things and mulched in late fall, only to watch all the Japanese maple seeds spiral down to cover my mulch. You can probably guess what I've been pulling out all spring.

Topsoil? For years I recommended against the stuff, since in LA it usually means subsoil dug from someone's swimming pool site. Not only is it heavy, but it creates horrible interfaces between soil layers. I've been convinced by friends here that it's good stuff (since it's "manufactured"), and I use it to make new mounded beds. And indeed, it seems to work fine.

Now some of these observations may have more to do with our rural location and the size of our property than with being in another climate. We garden on about three of our 10 acres, the rest being mostly steep slopes or wet bottomlands filled with alders, big-leaf maple, and cedars. Until retirement and our move, we always gardened on semi-urban lots of about 60 by 160 feet, completely replanting them now and again for variety and keeping the footprint of our houses small to allow for more garden. Here we've been able to spread out a bit.

Planting and Transplanting

The same thing that keeps weeds alive here also makes it possible to move plants with impunity. In California, if you dig up a plant at any time except the dead of winter, it will probably die; here I've successfully moved plants large enough to send me to the ER and found plants sitting out of the ground, happy as can be, even though I'd forgotten about them for weeks. As a gardener new to the Northwest and its plants, I've moved a lot that were in the wrong place or had grown too large, too quickly, which always makes me nervous concerning their future.

While moving plants, I discovered another difference. In California, plants send their roots deep, where they are safe from the evaporative effects of the sun, and where moisture might be found. Even a little shrubby thyme might have roots three feet deep. But that same herb up here has roots only about eight inches deep, even after several years, though they may *spread* for several feet. Even the huge native trees are surprisingly shallow rooted, as we found out when a giant cedar fell over, luckily well away from the house and garden.

Now I've been told this has to do with the hardpan that's found a foot or so down in many of our glaciated soils, but I suspect it also has a lot to do with that nearly constant drizzle. Roots near the surface can quickly make use of it, and it is relatively dependable. No need to plumb the depths.

I recently noticed that the University of California's recommended size and shape for planting holes differs from the University of Washington's—in that the former tries to direct roots downward, while the latter makes sure they can spread far and wide.

Here's an odd little difference: In California I never gardened with gloves, except when pruning roses. Here I wear them often. We garden on a gritty, sharp glacial till, and it's tough on the fingers. Soils are often wet, and cold, so I use the thicker kind of gloves in winter. I still prefer to do many tasks—including weeding—without, and my gardening son thinks it's kind of wimpy to garden with gloves. But go into any nursery or hardware store in California, and you may have to search hard for the gloves; walk into my local hardware store and racks of them stare you in the face. In California, I'd never even seen the rubberized, stretchy kind so popular up here. Maybe that's because I didn't look hard enough, but Southern California soils are softer silts and clays, and no one there has to garden in the wet or cold.

Sun and Shadow

I taught a class in California where one of the homework assignments was to make a map of your garden that showed what was sunny or shady at various times of the day, so you could plant the right thing in the right spot. Up here, the tall trees and the seasonally low sun make that almost impossible; it varies so much throughout the year and the day. Shadows can stretch for what seems like miles, and then suddenly it's summer, and that plant is in blazing sun. It's one reason I keep moving plants. Not enough light. Too much.

BELOW: Fall color of the flowering sort: Two cultivars of *Zauschneria* (I will never call them *Epilobium*!) bloom with *Caryopteris* 'Worcester Gold' and black-eyed Susan in September, with *Solidago* 'Fireworks' in the background.

Many plants are surprisingly tolerant. In California, if you put a shade plant in a sunny location, it's toast. Here the native sword fern sets the pace, growing deep in our woods or out in full sun, and I've found that rhododendrons and many others are nearly as nonplused. The long winter shadows, it turns out, are not very significant because so many plants are dormant then, or nearly so. Still I find it all a bit disorienting.

Did I mention I've planted way too many rhododendrons? I have a hard time resisting them, not just for their amazing flowers but

for their varied and equally amazing foliage. I was rather surprised recently when a respected garden writer seemingly wrote them off as "overgrown green blobs" and then extolled the virtues of winter daphne. In my short experience, the latter can look really nasty after a good frost, while the rhodys simply roll up their leaves like cigars and laugh it off. But maybe that's just at our place, where it can occasionally dip to 13 degrees.

I find that rhododendrons keep the garden interesting in any season, and have such variety—with leaves gray to reddish to furry and felted, and with stems as peely as any paperbark maple or madrone (sorry, Californians call them "madrones," and it's a hard habit to break). I've planted a little over 120 different species and cultivars. I know, what got into me? I'll be digging them out and moving them forever, since they never stop growing. But they sure are pretty now.

I can blame some of this on impatience, since this brings up yet another difference between here and there. In California, things take off and grow nearly year round, so they fill in quickly. Here, someone finally pointed out to me, it takes about three years for something to look like it's established. My new rhodys and other shrubs—and even trees—mostly sat there for three years, then suddenly almost doubled in size and started blooming.

Our first spring and summer, I got carried away buying all of the wonderful herbaceous perennials for sale up here (which were uncommon in LA), plus lots of deciduous shrubs I'd never grown. Deciduous azaleas, *Clethra, Deutzia, Enkianthus, Fothergilla, Itea, Kirengeshoma* and so on down to *Weigela* and *Zenobia*—I had to try them all. But that first winter, sitting in my rocker on my new front porch, I was shocked at how bare the garden looked. Coastal Southern California is pretty much broadleaf evergreen territory, so I was unprepared. Yes, there are deciduous trees and even a few shrubs in Southern California, but they are definitely the minority—one reason the place looks so season-less. Of course many of the shrubs I'd planted were still quite small, but there were clearly not enough of the evergreen sort. I realized I'd ignored my own rule to "shop in every season" so you see things that look good at every time of the year.

Seasons

Soon I added witch-hazels (six kinds), fragrant sarcococca and those wonderful new hellebores that bloom right though winter, like *Helleborus* 'Joshua' (flowers November to January), 'Cinnamon Snow' (January to February) and 'Pink Frost' (February to March). One exceptionally happy January combination is a drift of 'Cinnamon Snow' blooming under the deep-red-flowered *Hamamelis* 'Diane'. In early spring, blue Sensation-strain bedding primroses go into the mulched part of the bed, soon joined by clumps of returning Siberian iris; in summer up comes *Persicaria amplexicaulis* 'Orangofield' (Orange Field[PBR]) with *Geranium* 'Rozanne' spilling through.

ABOVE: Things start to color up near the end of October, including the almost Day-Glo *Hamamelis* 'Diane', Japanese maples and a smoke bush. The fuchsias and begonias seem oddly out of sync.

In autumn, 'Diane' turns fiery orange with blushes of red. What a finish! In all seasons, clumps of the shrubby *Gaultheria mucronata*, hold it together and make a dainty but strongly upright background.

There's a growing presence of shrubs like this with evergreen foliage, from small conifers to rhododendrons with fascinating leaves to kalmias and *Kalmiopsis*, *Arbutus*, leucothoes, loniceras, *Garrya, Gaultheria, Rhamnus, Vaccinium*, several kinds of *Osmanthus* and so on.

It took me a while to discover these plants, but it has certainly paid off and made winter much more enjoyable. Four years later I can sit in my rocker in winter and see a garden nearly as nice as it is in spring, summer or fall. Lesson learned.

Though the garden in winter is a lot less bare than it used to be, it's still more open and light than in other seasons, which is welcome during these dark days. You can see more of the architecture of the garden and the gardener's craft, and it is one of my busiest times of the year for planting and transplanting, except when the ground is frozen solid. (Trying to dig in frozen ground was a new one for me. You can't!) Another advantage to gardening in winter here: There are no mosquitoes, biting flies, slugs or bears.

Flower Color

Did I mention color difference? It's actually quite striking and why I'm glad I got to garden in both climates. Under the strong, sometimes hot Southern California sun, pinks and blues almost disappear, so one tends to favor the orange-red end of the spectrum—and perhaps some purples.

But here you can grow true blue, thanks to the subdued sun and acid soil, yet another big difference since California has alkaline to very alkaline soils. There are so many true-blue flowers to try, though my wife—the real color expert—is quick to point out that what I call blue is not always exactly so. But who can argue with *Meconopsis*, one of the first things I planted and got so excited about when it bloomed that, that, oh I don't know. I was really excited.

Or how about *Brunnera*, some *Corydalis* and lungworts, gentians, blue hydrangeas, *Lithodora, Mertensia* or *Omphalodes*? Wow! We can also get away with hot colors in summer. There's no arguing with such popular choices as *Crocosmia* 'Lucifer' or heleniums like 'Moerheim Beauty'. And Northwest gardeners are finding new "hotties" to try almost daily. However, I still find the basic color schemes of north and south quite different, owing to the quality of the light and the soil pH.

I should also include the density of plantings, comparing the choked woods of the Northwest with the openness of Southern California's chaparral, both of which have their garden counterparts. This is an aesthetic I still struggle with. I like my garden to feel light and open, but if you leave too much space between plants, you either have a lot of mulch or a lot of weeds. We are trying various ground covers, but so far, too many are too bare in winter or overly rambunctious. And this brings us back to the beginning and those basic differences of light and wet.

The differences have certainly made my new garden quite distinct from my last. And even though I've seen gardens of Seattle and Kitsap friends that look a lot more like the tropical and Mediterranean gardens I left behind— that's not really why I moved here now, is it? ~

Robert Smaus was the garden editor of the "Los Angeles Times," and before that the Southern California garden editor for "Sunset" magazine. He has written four books and was the West Coast host of PBS's "The Victory Garden," often reporting on Northwest gardens—a time during which the seeds of his move here may have been sown.

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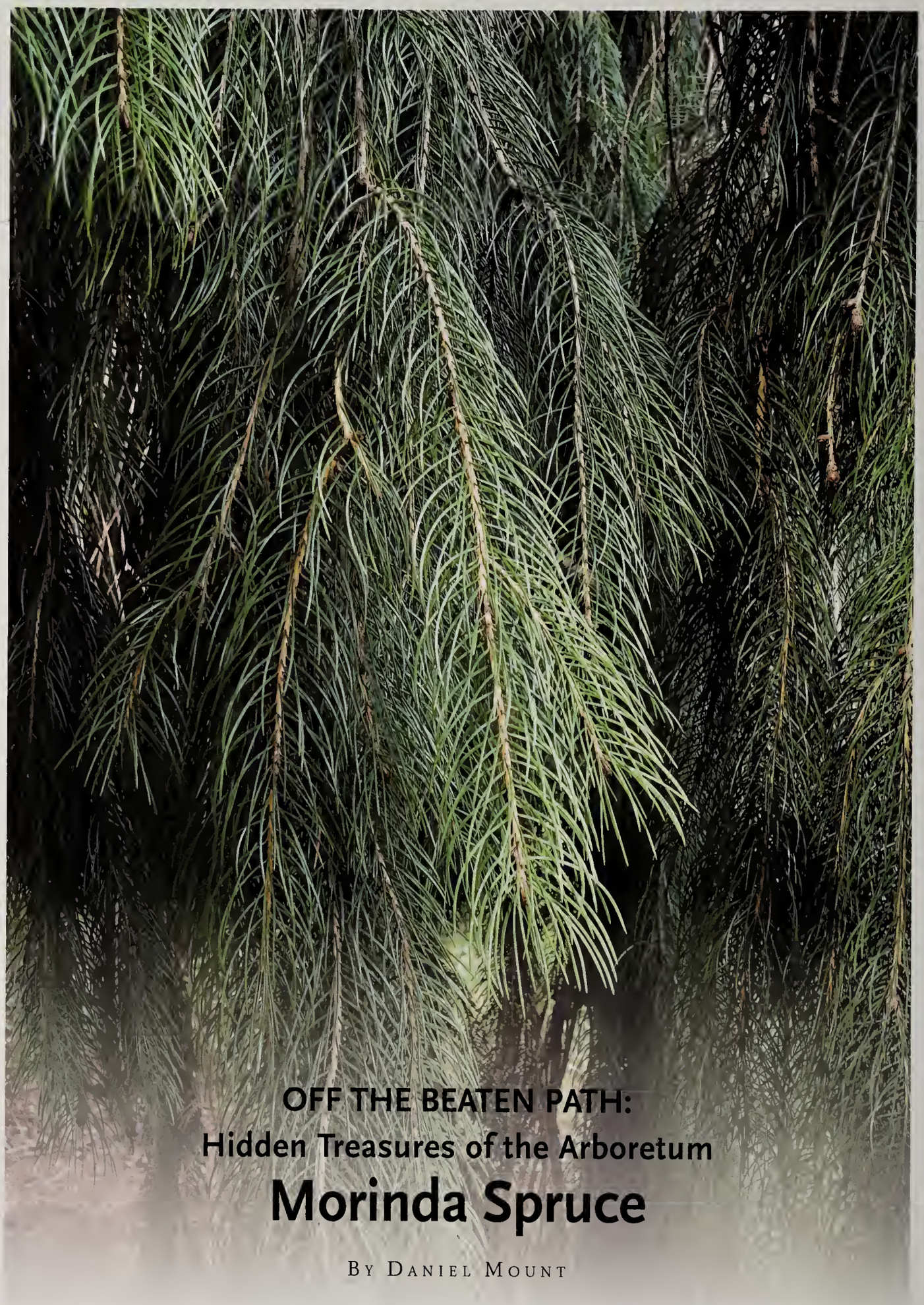


OFF THE BEATEN PATH:
Hidden Treasures of the Arboretum

Morinda Spruce

By Daniel Mount

Weeping foliage of the Arboretum's largest morinda spruce, on the north end of the Sorbus Collection. (Photo by Daniel Mount)

Morinda spruce (*Picea smithiana*) is a subalpine conifer endemic to the Himalayas. In its home range, it is a large conical tree reaching up to 70 meters tall. Unlike most members of the genus, which have short, spikey needles, this spruce bears distinctively long, soft needles. It also has a dramatic weeping habit, outdoing that of our native Sitka spruce (*P. sitchensis*). The tree's large, pendulous cones are covered in golden pearls of resin, from which it derives its common name "morinda," meaning "the honey of flowers" in Nepalese.

Morinda spruce thrives in the warm, moist monsoon climate of the Himalayas, at elevations between 2300 and 3750 meters. At lower elevations, it grows in mixed forests with deciduous species such as oaks, maples and cherries; at higher elevations, it's found in pure stands, or with other conifers such as pines, firs and hemlocks. Harvesting throughout its range for construction and paper pulp has taken a heavy toll on populations over the centuries.

In the Arboretum, the species is represented by nine specimens. The largest and best example, growing at the north end of the *Sorbus* collection, arrived in 1958 as seed from a specimen growing in the Tasmanian Botanical Gardens in Hobart. Only one seed of the shipment germinated, and the resulting seedling was planted in 1968 when it was nearly five feet tall. It flourishes behind a large grouping of *Deutzia*, and just feet away from the Broadmoor golf course.

Very close to it is another specimen, which arrived in 1958 as a scion from the Morris Arboretum in Philadelphia. It was also planted out in 1968 at about five feet tall. It's easy to compare the vigor of a seedling to a cutting when looking at these two trees: The seedling has greatly outpaced the scion in growth.

You can find another mature morinda spruce across Arboretum Drive, in the native matrix south of the Magnolia Collection. It arrived in 1957 as a small tree from Kingsville Nursery, in Maryland, and was planted out three years later. Growing in the shade of other trees, it has become tall and thin but still sustains the characteristic long needles and drooping branches nearly to the ground.

A little farther west on the trail that leads through the Asiatic maple collection to Azalea Way, is a young and lovely specimen planted in 1983. It arrived as seed from Kew Gardens, having been collected at 2600 meters in Kashmir. This well-sited tree seems just as at home at these lower elevations as it might be on the slopes of the Kashmiri mountains. It should prove to be a treasured tree in the Arboretum for decades to come.

Three new morinda spruces were planted in 2009. They arrived from Quarry Hill Botanical Garden, in California, as seedlings grown from wild-collected seed, and were promptly planted into the native matrix to the west of the Pacific Connections interpretive shelter. They are vigorous youngsters that we hope will create a beautiful backdrop to those gardens as they mature.

Daniel Mount is an estate gardener, garden writer and member of editorial board of the "Bulletin." He lives on a small farm in the Snoqualmie Valley. Read more of his reflections on plants and gardening at www.mountgardens.com.

Honoring Mr. Smith

Picea smithiana has many common names besides morinda spruce, including Indian spruce, Tibetan spruce and West Himalayan spruce. The specific epithet is named for James Edward Smith, the gardener at the Hopetoun House estate outside Edinburgh, Scotland, who started the first seed brought to the West in 1818. The tree, which he planted in 1824, is still thriving at the estate today.

A World of Hydrangeas at the Arboretum

By Nita-Jo Rountree

From the swelling of their leaf buds heralding the arrival of spring to the opening of their impressive flower clusters in summer to the changing of their foliage colors in fall, hydrangeas have a long, varied season of interest and beauty. And here in the Pacific Northwest, we live in a hydrangea heaven! Dan Hinkley has encountered many species of hydrangea in the wild during his plant-hunting expeditions around the world, and he observes, "The climate of the Pacific Northwest offers gardeners the opportunity to grow nearly every species of *Hydrangea* that exists, from evergreen vines from the Southern Hemisphere, to small, tree-like species from Asia. With such a breadth of elegance and ornament from the raw species themselves, it seems hardly necessary to explore the cultivars of *H. serrata* and *H. macrophylla*, although with these, too, are found marvelous plants to make gardens shine from spring through fall."

Washington Park Arboretum showcases mature specimens of both classic and rare species seldom seen in American gardens. Below are profiles of some of the uncommon hydrangeas you can encounter by taking a stroll through Rhododendron Glen, just north of the new Pacific Connections Garden. Few of these shrubs can be found for sale in traditional garden centers. However, most of the plants are available for purchase at the Arboretum Foundation's Pat Calvert Greenhouse, thanks to the volunteers who run the greenhouse's propagation program.

OPPOSITE: *Hydrangea macrophylla* 'Hamburg' blooming in the Arboretum in late June. (Photo by Nita-Jo Rountree)

LEFT TOP: The lacecap flowers of *Hydrangea heteromalla.* (Photo by Niall Dunne)

LEFT BELOW: The fuzzy-leaved *Hydrangea aspera* subsp. *sargentiana.* (Photo by Nita-Jo Rountree)

What's more, money from these sales helps sustain the Arboretum's collections! Whether you come to buy hydrangeas or just pay them a visit, you'll discover that these plants are a feast for the eyes and other senses.

Hydrangea aspera* subsp. *strigosa—Asperas are unique among hydrangeas because of their combination of scaly-looking, rounded flower buds; fuzzy, rabbit-ear-like, lance-shaped leaves (petting them is allowed); exfoliating bark; and wide, lacecap-type flower clusters (see "Lacecaps, Mopheads and Panicles"). The blue-purple fertile flowers in the center of each cluster are surrounded by large, sterile, white flowers. Most *H. aspera* bloom around July and August; however, this rare subspecies from Central China starts to flower in early November, when little else is blooming, and it continues until a hard freeze. The Arboretum's specimen was a donation from Dan Hinkley.

Hydrangea aspera* subsp. *sargentiana—Randall Hitchin, the Arboretum Foundation's resident plant guru, says that the fuzzy leaves on this plant are so big you could fit a velvet Elvis painting on one! Native to China, it was introduced to the West in 1908 by Ernest Wilson from a plant-collecting trip commissioned by the Arnold Arboretum. The subspecies name honors the then-director of the Arboretum, Charles Sprague Sargent. The plant's lacecap inflorescences are five to six inches in diameter and open around mid-July.

Hydrangea heteromalla—The Arboretum's mature, 20-foot-tall specimen of this shrub is a

Lacecaps, Mopheads and Panicles

A hydrangea "flower" is actually a cluster of flowers. Each cluster is typically made up of fertile flowers that are small and petal-less and sterile flowers that are surrounded by large, showy sepals. (It's thought that the sterile flowers act as visual cues to attract pollinating insects to the fertile flowers.) The flower clusters come in three general forms: lacecaps, mopheads and panicles. Lacecap inflorescences are relatively flat-topped clusters, or corymbs, and feature a central grouping of fertile flowers ringed by a disc of large sepals. Mopheads are solid, near-spherical domes of showy, sterile flowers, with a few fertile flowers in the center. Panicles are cone-shaped clusters of intermingling fertile and sterile flowers found on species such as *H. paniculata* and *H. quercifolia.*

TOP: The lilac lacecap flowers of *Hydrangea involucrata*. (Photo by Denis Prévôt, courtesy Wikipedia Commons)

BELOW: The showy white panicles of *Hydrangea paniculata*. (Photo by Nita-Jo Rountree)

sight to behold! The trunk of this giant measures approximately 16 inches in diameter. Wow! Native to China and the Himalayas, *Hydrangea heteromalla* is an early-blooming species, whose white lacecap flowers sometimes start to open by May. But they don't stay white. Randall Hitchin wrote about this in a recent issue of "GroundWork:" "As the flowers are pollinated, each 'petal' begins a progression of color shifts that continues through summer and into fall. By October, the long-lasting, ever-changing floral parade culminates in rich burgundy-stained flowers." Maximum flower production for this species is achieved in full sun.

Hydrangea integrifolia—This evergreen, self-clinging climbing vine from Taiwan and the Philippines is a slow starter, but once it gets going, stand back! If left unchecked, the vine will ramble up to 40 feet high in part shade. It produces glossy, elongated leaves in pairs along hairy stems. In early summer, golf-ball-size globular buds open to reveal eight-inch-wide, delicate, white lacecaps. *Hydrangea integrifolia* grows to be heavy vine, so it needs strong support. It looks great in a woodland setting, climbing up a large evergreen tree and lighting up the understory.

***Hydrangea involucrata* 'Tama Azisai'**—This unique species from Japan and Taiwan, allied to *H. aspera*, grows only about three to four feet high and wide and has a sprawling habit. The uniqueness stems not from the small size but from the fact that, until they open, the plant's plump flower buds are completely enclosed by handsome, velvety bracts that look like eggs waiting to hatch. When the buds do "hatch," they reveal three- to five-inch-wide lacecap blooms, with fertile, lilac flowers surrounded by larger, sterile, white flowers. *Hydrangea involucrata* is another later bloomer, typically flowering from

A Note on Hydrangea Care and Color

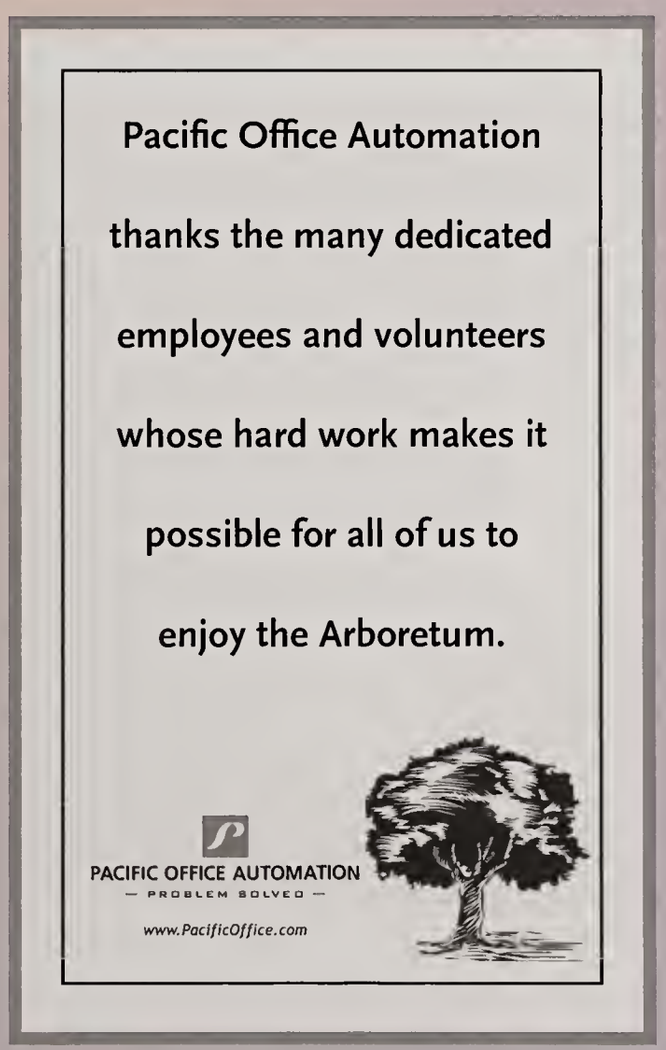
Hydrangeas grow best in moist, well-draining, humus-rich soil. In hot climates, they benefit from some shade, but here in the Northwest, the plants flower best in sunnier locations. Just be sure to protect them from drying winds! Unless otherwise noted, all the hydrangeas profiled here bloom on old wood (last year's growth). So, if you prune off the outer-most bud, then that branch will not bloom until the following year. The flower color of the *H. macrophylla* species, with the exception of the white varieties, is dependent on the amount of aluminum that's available to the plants in the soil. Alkaline soils tie up aluminum, resulting in pink flowers. Readily available aluminum in acidic soil produces flower colors in shades of blue to lilac.

July to September. It has been known to bloom on both old (a year or more of growth) and new wood. The plant likes morning sun but benefits from afternoon shade and somewhat-protected conditions. The Arboretum's 'Tama Azisai' selection has been growing there for 43 years!

***Hydrangea macrophylla* 'Hamburg'**—Probably the most popular hydrangea species is the Japanese *H. macrophylla*, which has more than 500 cultivars. These cultivars are divided into two groups according to their flower types: "hortensias," or "mopheads," and "lacecaps." 'Hamburg' is a mophead with boldly serrated sepals, and it blooms for an unusually long time on old growth. The big, rounded flower clusters are pink in neutral to alkaline soil and blue in acidic soil. This cultivar holds its flower color well into fall. Growing five to six feet tall and wide, it prefers sun here in the Pacific Northwest.

***Hydrangea paniculata* 'Praecox'**—*Hydrangea paniculata* is a vigorous, medium-sized to large shrub native to China and Japan. It bears elliptical, dark-green foliage on cascading branches and dense, cone-shaped panicles of fragrant, creamy white, late-summer flowers. The cultivar 'Praecox' blooms earlier than the straight species and most other selections and has smaller, more globose, flower clusters. Most *H. paniculata* bloom on new growth and are often pruned to two buds above the ground in late winter, but 'Praecox' is an exception. According to Dr. Michael Dirr, in his book "Hydrangeas for American Gardens," this selection blooms on last season's growth and should not be pruned until after flowering. The original plant is still growing at the Arnold Arboretum and is more than 100 years old—a testament to its landscape adaptability. This hydrangea is best grown in full sun.

Nita-Jo Rountree is a Seattle-based garden designer, educator and speaker. A past president of the Northwest Horticultural Society, she now serves on its advisory board. She is also on the board of directors at the Bellevue Botanical Garden and a member of the steering committee for Heronswood.



GEOLOGY OF THE ARBORETUM, PART 1

Blame the Ice Age for Your Dirt!

BY PAIGE EMBRY

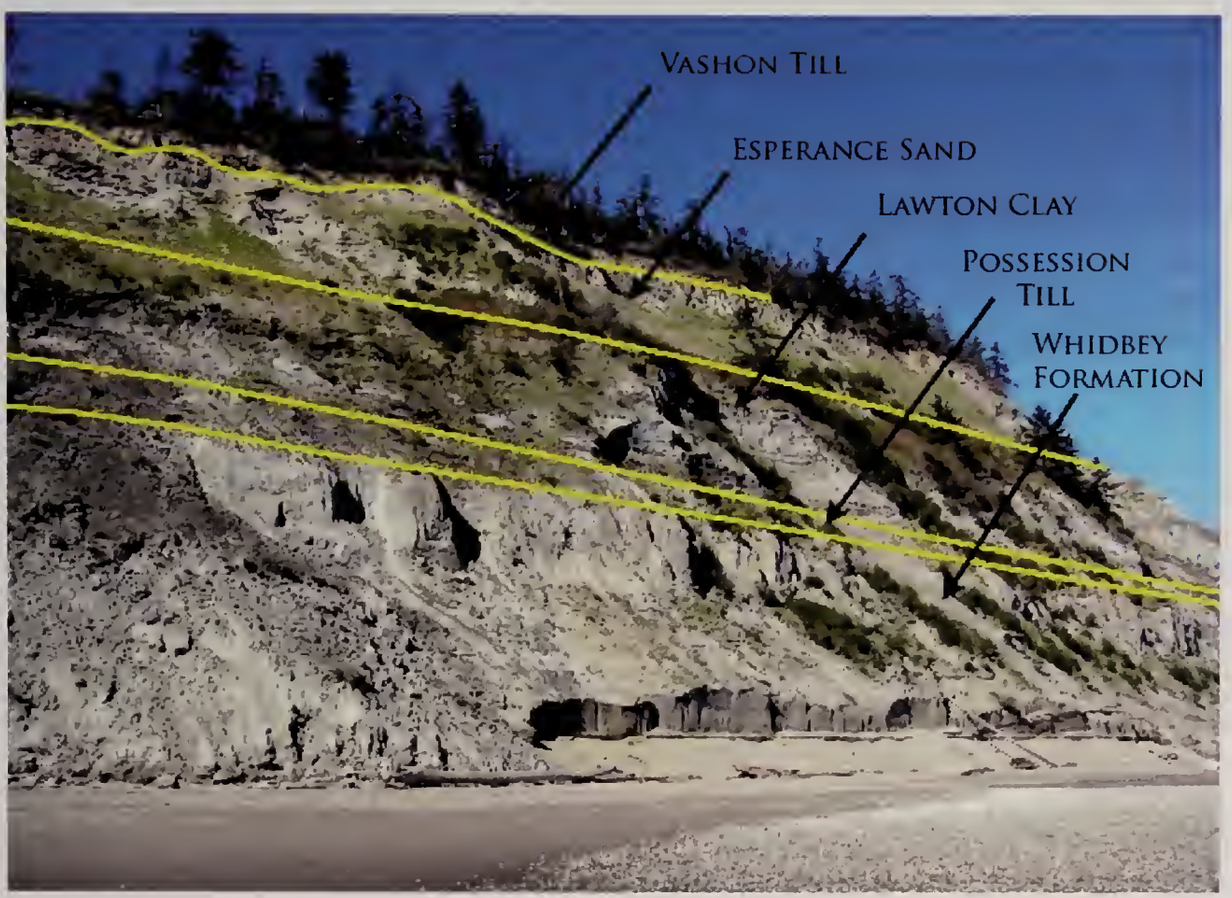
I moved a flagstone path in the front yard of my home in Wallingford recently, since I thought it would make more sense to put the path where people actually walked. What a bad decision that was, from a gardening point of view, because beneath that path was the expected construction sand and gravel and below that was—well—crap. I recognized this crap, though. It was compacted glacial till—an ugly, orangey mix of sand, silt and rocks of all sizes.

Till is not always crap, but it is often enough that my first response on seeing it was to sigh heavily. Some till has fewer rocks than mine or certainly doesn't run to ones the size of footballs. All those rocks make digging difficult. Also, with till you may be dealing with the dreaded hardpan 18 to 36 inches down that impedes water flow and stops roots dead in their tracks. Thank you, Ice Age!

Pretty much everyone in Seattle and the Lower Puget Sound has the last Ice Age to thank, or revile, for the soil they have. In fact, Seattle's entire landscape—its long north-south running hills, its lakes and valleys—are all due to the glaciers that have been coming and going through town for the last two-plus million years. Glaciers erode and sculpt the landscape and eventually deposit all that eroded material. It is all this erosional debris in its many

INSET: The glacial till—aka "crap"—in the author's front yard.

ABOVE: Wedgwood Rock, a famous glacial erratic near the neighborhood of Wedgwood, Seattle. Large glaciers can carry and deposit boulders just as easily as they can small grains of sand. (Photo by Paige Embry)



A great place to view the glacial strata of the Puget Sound Basin is at Double Bluff Beach on Whidbey Island. (Photo courtesy John Figge, www.northwestgeology.com)

forms that comprises the parent material for our soils. So to understand the local soils and how they affect your garden plants, you need to understand glaciers.

A Few Words on Glaciers

Glaciers come in two basic varieties: puny alpine glaciers, like the ones you see on Mount Rainier, and massive continental glaciers that are big enough to eat whole states and bury good-sized mountains beneath their hulking masses. The last glacier that came through here was of the latter variety. It filled the Puget Lowland with ice so thick— 3000 feet over Seattle—that it completely engulfed the Issaquah Alps, and that glacier was only a little lobe off the main ice sheet that came down from Canada and blanketed all of the northern United States.

Puny or massive, all glaciers start in the same way: when more snow falls in winter than melts in summer. Glacial ice bears little resemblance to the nice cubes from your fridge. First off, it moves of its own accord, grinding and growling across the landscape. A glacier moves in two ways: It slides along its base, lubricated by the meltwater beneath it, and—more perplexingly—it moves "downhill" from areas of thick ice to thin via internal deformation. The ice in your drink is a brittle solid that can be crunched between your teeth, but if you put ice under enough pressure, say the weight of a few hundred feet of overlying snow and ice, it starts to behave like a plastic—bending, stretching and oozing rather than breaking. And by these means, glaciers, and all that they carry with them, travel.

And carry stuff with them glaciers certainly do; they are very messy things. Everything a glacier encounters, from tiny clay grains to giant boulders, gets taken up and incorporated into its mass. Several thousand feet of ice moving across the landscape makes for a powerful bulldozer. The glacial erosion occurs in several ways, and both the ice itself and the meltwater associated with it erode vast amounts of material. The meltwater under the various glaciers that came through here scoured out Puget Sound, Lake

Washington and Hood Canal—and deposited all that eroded material miles and miles away (an awe-inspiring thought!).

So to summarize, snow falls, and a glacier grows and goes on the move, grinding away at whatever is in its way, picking up all sorts of dirt and debris along with it. Meltwater streams, underneath and in front of the glacier, carve channels and carry large quantities of sand, silt and gravel. Eventually, the climate changes, with more ice melting in the summer than falling in the winter, and the glacier "recedes." In fact, it just melts, and all of the dirt it has incorporated in its travels gets dumped, with small and large pieces being mixed together willy-nilly in a big ugly mess called glacial till—the crap under my sidewalk.

The Last Glaciation

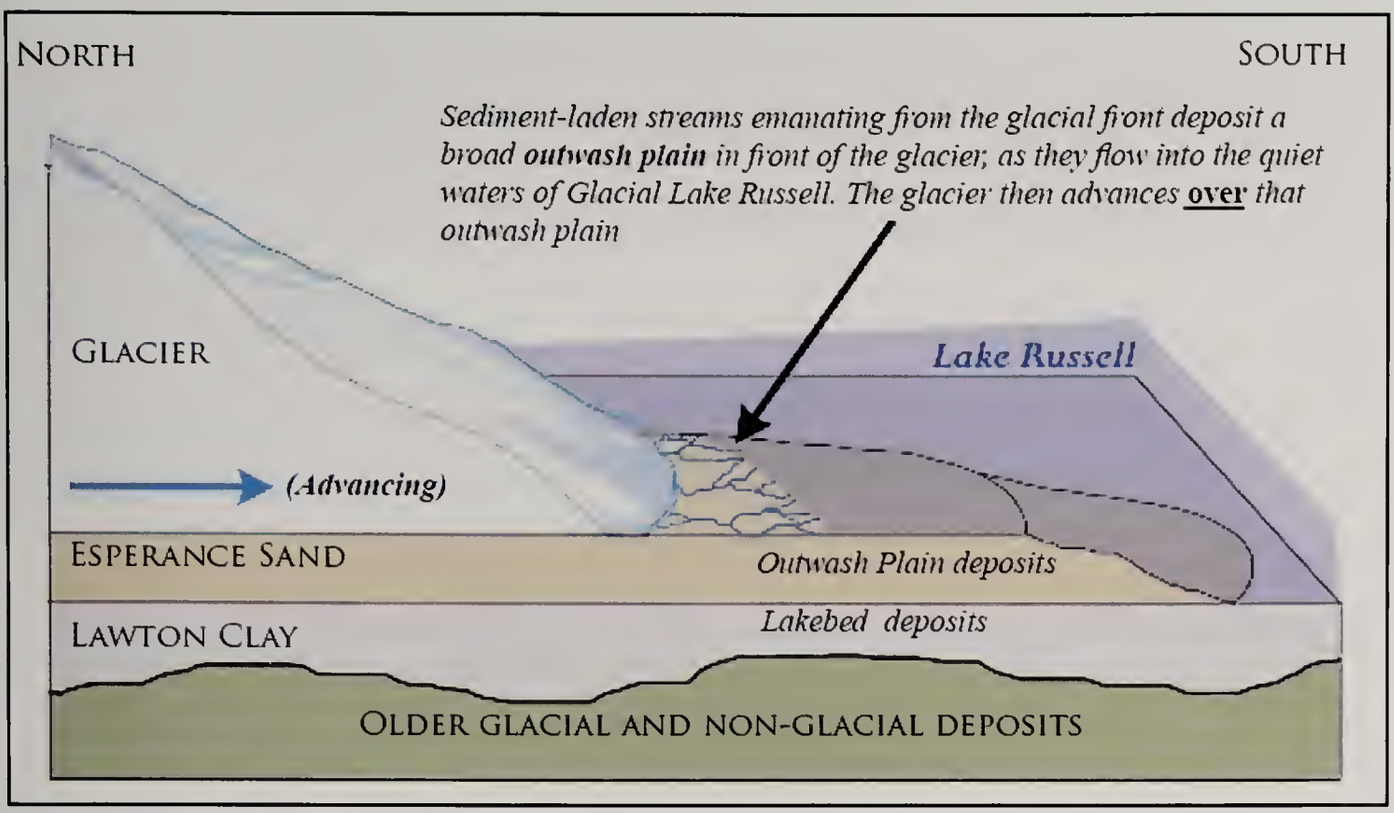
The current Ice Age (known as the Pleistocene Glaciation) started about 2.6 million years ago and continues today—although we are now in what is called an interglacial period (an intermittent warm period), in which the ice retreats to its home bases in Greenland and Antarctica. Scientists estimate that glaciers have covered the Seattle area seven times over the course of that 2.6 million years. Given the powerful bulldozing ability of glaciers, the arrival of a new one tends to obliterate any evidence of the last, so that most of what we see is from the very last advance of glacial ice. Around here, we call this the Vashon Stade of the Fraser Glaciation.

This last glacier started about 25,000 years ago in Canada and began moving south. During this time, more and more water became tied up on the continents in the form of ice, and the sea level fell. Puget Sound wasn't an ocean inlet but a lowland where streams coming off the Olympic and Cascade Mountains coalesced before heading out to sea through the Strait of Juan de Fuca. About 16,000 years ago, the ice sheet lumbering out of Canada blocked off the Strait, forcing all those rivers to back up into lakes. The sediments deposited in those quiet waters were fine and mucky silts and clays, which we now call Lawton Clay.

During the summers, meltwater flowed off the front of the glacier and formed a big, wet plain made of sandy, river-like deposits. The amount of meltwater was substantial, so much so that the so-called outwash sands completely filled the Puget Lowland. As the glacier crept and slid its way south, these outwash sands, called the Esperance Sands, were deposited on top of the Lawton Clay. You can see both layers in the bluffs at Discovery Park, Seattle, and evidence of them in many other locations around the region. The layers can

ABOVE: About 16,000 years ago, the region's last glacier blocked off the Strait of Juan de Fuca and created a large lake. Rivers flowing into the lake deposited fine silts and clays that resulted in the Lawton Clay layer.

OPPOSITE: Outwash from the advancing glacier deposited a layer of sand (Esperance Sand) on the Lawton Clay. The glacier then moved over the sand and clay. When it melted, it deposited a layer of unsorted sediment (till) on top of the clay and sand. (Illustrations courtesy John Figge, www.northwestgeology.com.)



significantly affect local soil hydrology. Rainwater infiltrates readily through the Esperance Sands but stops when it hits the Lawton Clay and piles up. This pileup of water at the interface of these layers is the source of many of Seattle's seeps and landslides.

The glacier reached Seattle about 17,400 years ago, flowing over the sands and clays, compressing them under its great weight—making a whopping hardpan in areas—and kept on going, getting as far south as Tenino, Washington. Then it all began to melt, and the final landscape of Seattle began to take form. Three thousand feet of ice melted in the space of a 1000 years, and all the material it carried just got dumped, unsorted, giving us the Vashon Till—my crap, and possibly your crap, too. Some of that material got re-worked by a myriad of meltwater streams. Ravines were dug, like those seen around Carkeek Park. But most of these streambeds are dry now, the waters that carved them long gone. As the streams died, the sands, silts and gravels in them got left behind and became the parent material for some of our sandiest soils, which can be viewed either as our best-draining soils or our "droughtiest."

Occasionally, these streams were blocked, and lakes formed with more silt and clay deposits. In some cases, large pieces of ice got stranded and melted more slowly than the rest of the glacier, leaving holes called kettles, which became lakes—including everyone's favorite, Green Lake. Later, when life came back to the area, some of the lakes filled with organic debris, creating peat bogs like those found in Greenwood. On its southbound journey, the ice also sculpted many elongate, north-south running hills in the till—called drumlins—the hills that define Seattle's topography and make biking east-west in Seattle such a pain.

Collectively, the material left by the last glacier is poetically called the Vashon Drift. Geologically speaking, the Arboretum area contains almost a complete set of the Vashon Drift and the soils derived from them. Till, sand, silty-clay and peat: Those are the parents of the soil in which most of us garden. Great soil or crappy soil—it's all the glacier's fault. ~

In the next issue—"Geology of the Arboretum, Part 2: How the Soils Affect the Plant Collections."

Paige Embry has been gardening in Seattle for 25 years, at the moment on a tiny lot in Wallingford. She is a former geologist and garden designer turned writer. She writes about gardening at the blog, "A Year in Seattle Gardens" (www.ayearinseattlegardens.com).

Creating a Digital Map *of the* Arboretum

By Tracy Mehlin

A homeowner is thinking about planting a particular tree in the garden but wants to see what a mature specimen looks like. The Arboretum might have one, but where?

A horticulture student has a project on ericaceous plants and needs to examine as many species as possible. The Arboretum is the place to start, but how can she find the plants?

A staff horticulturist needs to inspect the elms in the Arboretum for Dutch elm disease. He needs to pinpoint all the elm locations. The trees are mapped on paper, but paper isn't searchable. What to do?

A plantsman, Daniel Mount, writing an article for the "Bulletin" (see page 10) wants to know the location and provenance of each Picea smithiana *in the Arboretum. University staff can access this information, but the author doesn't want to bother them every time he wants to look up a tree's history. Where to turn?*

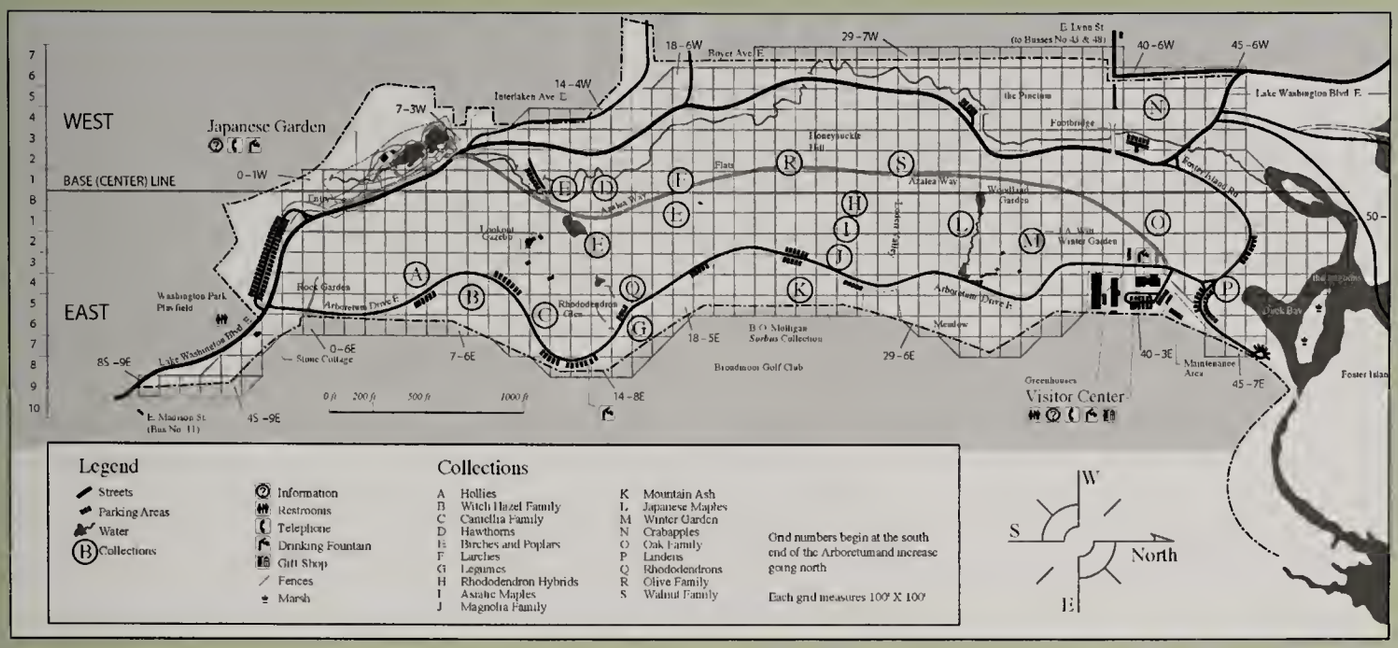
With the launch this summer of the University of Washington Botanic Gardens' new online, digital map of the Arboretum, the solution to all the above scenarios—and many more—will be just a mouse click away. Anyone with access to the Internet will be able to visit **www.uwbotanicgardens.org/gardens/map.shtml**, search the Arboretum's collections, pinpoint individual plant specimens, learn about where they came from and when they were planted, and—once the map is fully complete—see photos!

Mapping the Arboretum: A Short History

Mapping of the Arboretum's plants has been going on for more than half a century. In 1956, an anonymous gift funded the first collection-mapping effort, which involved laying out a simple grid system of 300-by-300-foot squares. Over the next few years, University of Washington students from the College of Forestry located and documented collection plants on the grid map. This effort started and stopped as funds were made available from private gifts.

RIGHT: Ryan Garrison surveying in the Arboretum using a Leica total station.

OPPOSITE TOP: The paper grid map of the Arboretum created in 1988



In 1988, Arboretum staff used surveying equipment to install a more detailed grid system of 100-by-100-foot squares within the original grid. Mapping the plants on this new map continued for a few years. Each grid (there are 598 altogether) was assigned a number from 0 to 50, with zero representing the southernmost end of the Arboretum and 50 representing the northernmost tip (not including Foster Island). The map also was divided along an east-west axis (roughly following Azalea Way), and the grids were designated accordingly. For example, grid point 40-2E is 4000 feet north of the start of the grid and 200 feet east of the baseline. Each grid square has four corner points, but only the southwest point is used to designate the grid name.

Mappers, led by former staff members Jan Pirzio-Biroli, Tim Hohn and Tracy Omar (and including part-time helper Daniel Mount), used tape measures to triangulate where accessioned plants (plants that are officially recorded in the collection) were in relation to the grid boundaries. They documented this location data on paper maps, using one map sheet per grid. Over the next 24 years, some individual grid maps were updated many times; others have not been "ground-truthed," or re-inventoried, since the creation of the original maps.

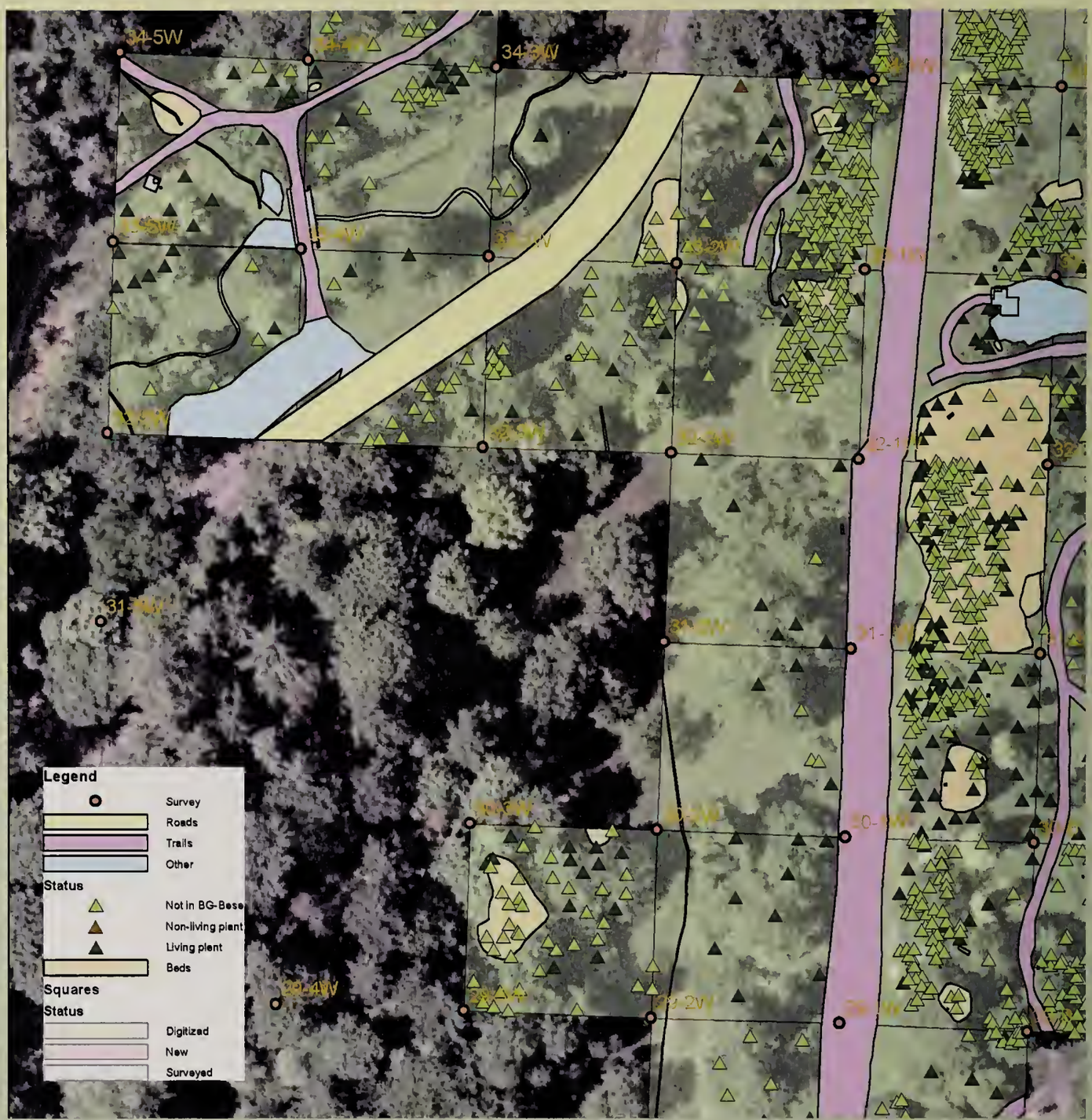
An effort was made to link the plant collection data stored in UW Botanic Gardens' database—a program called BG-Base that's used by many public gardens to manage their collections—to a map generated by its companion software, BG-Map, but technical difficulties proved overwhelming. Location data has been confined to paper grid maps.

Creating an Integrated System

Horticulture and curation staff at the Arboretum has always had access to the detailed, individual grid sheets, but the public had to make do with a

Linking to Historic Records

Thanks to funds provided by the Arboretum Foundation, the historic plant records from the Arboretum are being scanned and will eventually be linked to the interactive map of the Arboretum. University of Washington students have been working on the project under the supervision of the UW Libraries. Map users will be able to view the accession cards that recorded such details about each plant as its source, date planted out, and its condition as noted during field checks. As well as giving the public wider access to this valuable information, the project also will help to preserve the records by reducing handling of paper originals.



tiny version of the complete grid map printed in the "Woody Plant Collection in the Washington Park Arboretum," a small catalog last published in 1994. The catalog lists every accessioned plant in the collection in alphabetical order, along with a grid number location for each plant. If you've ever tried to find a specific plant using the catalog, then you know it can be a challenge. If the grid that you're directed to is densely planted, your search can easily end up being of the "needle-in-a-haystack" variety. Even finding a specific grid can be difficult because few landmarks are noted on the map, and no grid-point identification system exists in the field, except for the occasional brass nail "monument" (or surveyor's mark) pounded into the ground.

Another shortfall of print grid maps is the inability to "search" them (in the modern, digital sense). The way to see all the *Picea smithiana* specimens, for instance, was to first search BG-Base for grid-location codes, then pull the paper maps for each of the grids, and then scour

ABOVE: A sample view of the georeferenced digital map of the Arboretum, with collection plants and other features marked onto the map grids.

each map for the plant name. Performing all these tasks is only something that can be done under the supervision of certain trained members of the UW Botanic Gardens staff.

Current UW Botanic Gardens Director, Professor Sarah Reichard, imagined an integrated system in which one could search for a plant and see not only records data about the accession but also its location on a digital map and any associated scanned historic records. Conversely, she wanted to be able to scroll over a digital map of the Arboretum and click on any plant point to see records data. She wanted this system to be available to everyone from anywhere on the Web. In August 2012, UW Botanic Gardens was awarded a grant by the Institute of Museum and Library Services to build such a system.

In the Arboretum with a Total Station

The first task was to re-survey the grid to ensure the accuracy of the original surveying work, and then to link it to digital-mapping software. The grant funded the purchase of a Leica total station, which is a set of sophisticated pieces of equipment that measures and collects very accurate spatial information. The University contracted with the City of Seattle Surveying Unit to install control points (location markers of reliable authority) in the Arboretum that would give staff known references for determining the map coordinates of the monuments from the 1988 grid. (Monuments were placed in the ground on every corner of the 1988 grid.)

Jim Lutz, a former research scientist in the School of Environmental and Forest Sciences, taught our staff, student and volunteer crews how to survey and consulted on the surveying effort. Staff horticulturist Ryan Garrison and registrar Keith Ferguson were heavily involved with both surveying and managing the resulting data. Some grid points were relatively easy to survey, while others proved more elusive. Some monuments were buried and hard to find; in other instances, foliage blocked the required clear line of sight from a monument grid point to a control point. In the case of the New Zealand Forest at Pacific Connections, the original monuments were lost during garden construction, and new ones had to be installed. Ground-nesting bees and wasps also made the work challenging.

Digitizing the Print Maps

To make the interactive digital map of the Arboretum, University staff used a geographic information system (GIS) program called ArcGIS, for which the UW has a site licence. Once four corners of an individual grid were surveyed, and that information was uploaded into the ArcGIS map of the Arboretum, a scan of the corresponding paper grid map could be imported into the program. The corners on the grid map scan were then linked to the surveyed points for that grid, and the program "georeferenced" the data (linked the digital map to the physical location) by fitting the scanned map to the four surveyed points.

School of Environmental and Forest Sciences application developer David Campbell built the geodatabase and corresponding map, while Masters student Andrew Fraser (now a graduate) performed about 95 percent of the digitizing. After the corners of each grid map were georeferenced, each tree, shrub, path and bench—or anything else documented on the print map—was transferred to the geodatabase. This was a manual process, with each item either entered as a point (e.g. a tree) or a polygon (e.g. a path).

After a majority of grids had been digitized, David published the map and associated data online and started to develop features—such as panning, zooming and searching—that would allow users to interact with the map. The plan is to start out with basic functionality and then add features as we learn how people are using the interactive map. The map has been in a beta-testing phase since April 2014 and should be ready for public use by the time this article appears in late June. ~

Tracy Mehlin is IT librarian at the Miller Library and web manager at UW Botanic Gardens.

Q&A from the Miller Library's Plant Answer Line

TRANSPLANTING *EMBOTHRIUM*

By Rebecca Alexander

This regular column features select Q&A from the Elisabeth C. Miller Library's Plant Answer Line program. If you'd like to ask a plant or gardening question of your own, please call 206-897-5268 (UW Plant), send it via the library website (www.millerlibrary.org), or email directly to hortlib@uw.edu.

The spidery, brilliant red flowers of *Embothrium coccineum*, blooming at the north end of the Pacific Connections Garden in late June. New specimens of the tree were recently planted in the Garden's Gateway to Chile section.

QUESTION: After admiring the beautiful blooms on a Chilean fire tree (*Embothrium coccineum*) in the Arboretum, I decided to try to plant some seedlings. They all died, even though I amended the planting hole with compost. I bought a much larger balled-and-burlapped (B&B) tree from a local nursery and asked their advice on how to plant and care for it. They said I should add fertilizer to the planting hole this time. Does this sound like a good plan?

ANSWER: Current thinking is that amending the planting hole is not a good idea if you want the plant's roots to venture forth and get established. Planting in native soil is best. Also, be sure to remove the burlap and gently work the roots free of the clay ball before planting. Washington State University Extension Urban Horticulturist Linda Chalker-Scott has written on this topic. Here is an excerpt from her essay, "The Myth of Collapsing Root Balls:"

"The most important reason to disturb the root ball of a balled-and-burlapped tree is to inspect the root system. The circling, girdling, kinked and hooked root systems often found in containerized plants occur frequently with B&B materials, too. Nearly every B&B tree I have purchased and installed, either in my own landscape or as part of a project, has had serious root defects. By removing the heavy clay one can find and correct many of these defects. Without corrective pruning these defects will significantly lower the life span of your tree."

Embothrium (especially when larger than a seedling) has a reputation for being difficult to transplant, so it's well worth trying to provide the ideal planting site and the right kind of care. Among other preferences, *Embothrium* appreciates good drainage and shelter from cold wind.

According to Portland-area nursery owner Sean Hogan (author of "Trees for All Seasons," Timber Press, 2008), Chilean fire tree—like other trees and shrubs in the family Proteaceae (such as *Protea, Banksia* and *Grevillea)*—is especially sensitive to phosphorus fertilizer, and "not too fond of potassium either." The preferred climate for this tree is "a cool maritime influence or sufficient elevation" to make sure the soil does not get too hot. Warm soil plus moisture can lead to fungal disease. Hogan says the adage about *Clematis* also applies to *Embothrium*: "Faces in the sun, feet in the shade." Should we have a hot summer, you can protect your tree by watering only when temperatures cool. Don't add a lot of compost around the tree (it likes lean soil), provide afternoon shade, and make use of ground cover plants to keep the soil cool. ~

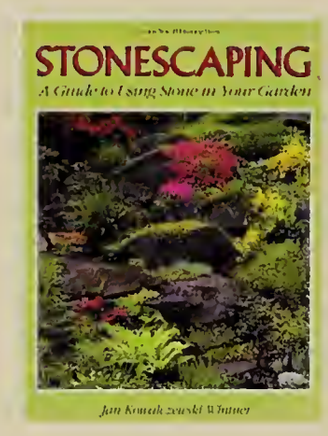
Rebecca Alexander is the Plant Answer Line librarian at the Miller Library, located in the UW Botanic Gardens' Center for Urban Horticulture (3501 NE 41st Street, Seattle).

A Retrospective of the Writings of Jan Kowalczewski Whitner

By Brian R. Thompson

From 2007 to 2013, Jan Kowalczewski Whitner was editor of the "Bulletin," a position described as her "dream job" in "The Seattle Times" remembrance of her life. The same article paid homage to her considerable output as a garden writer.

I'm dedicating this edition of "In a Garden Library" to Jan's memory, and in particular to recalling the four gardening books she wrote in the 1990s. Typically I review new books, but Jan's writing stands the test of time, and her work still has much to teach us as gardeners.

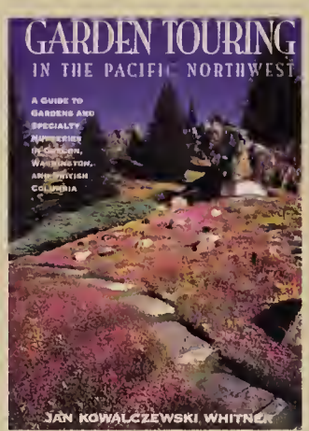


Stonework

Two traits stand out in Jan's collected writings: her passion for stonework and her considerable skill at using words to describe a garden. Both are apparent in her first book from 1992, "Stonescaping." Also apparent is her training as an historian—where she expertly traces the history of stone in gardens as it has been used in Chinese, Japanese and European traditions, and then presents simple but engaging descriptions of home-scale gardens that adapt and meld these traditions.

This would be plenty to fill a first book by most authors, but Jan had more to offer. She continues with an extensive practicum on building everything from stone hardscapes to rock gardens, and even hypertufa birdbaths. This combination of history, design and construction is what makes this book so unusual.

One paragraph from the chapter on rock gardens demonstrates this synergy: "If you have a flat site on which you wish to build a rock garden, use a construction technique first developed by ancient Chinese gardeners to introduce different levels to the composition by digging out low areas and then mounding the excavated earth into ridges and plateaus above them. Use half-buried, weathered stones to replicate outcrops, and work from the bottom of the rock garden toward the top."



Garden Touring

Jan went on the road for her next book, "Garden Touring in the Pacific Northwest" (1993). You may wonder why a tour book more than 20 years old would still be useful and of interest. Details such as opening times and admission prices are out of date; most of the gardens described have gone through significant changes; and, sadly, some outstanding gardens—like the Berry Botanic Garden in Portland—are gone.

The answer is the quality of the descriptive writing. Jan had an ability to bring gardens alive—for example, in this opening about our Arboretum: "At first glance, it looks simply like a tranquil Northwest woodland garden, but Seattle's Washington Park Arboretum actually contains exotic horticultural treasures around every bend in the path..."

I've read a lot of garden touring books, and the layout for many is reminiscent of the "Yellow Pages." By contrast, this book is a series of vignettes, stylishly inviting you to keep reading, even if the destination is not on your travel

itinerary. Jan's description of the VanDusen Botanical Garden in Vancouver, British Columbia, was excerpted in the winter 1992/93 issue of the "Bulletin" and includes such descriptive gems as "...the twisting papery branches of the deciduous hydrangeas show off well against the berried hollies in winter..." and "a magical woods... bordering a shallow lake dotted by uprooted snags that look like drowned bonsais."

Tucked between the major gardens are fascinating bits on minor parks, noteworthy plantings in public places, and private gardens that were—at that time—viewable by the public. If nothing else, this is a walk through garden history and will leave the reader with a richer sense of our region's gardening heritage.

Garden Style

Jan immediately won my approval in "Northwest Garden Style" (1996) with her approach to determining the most common landscaping problems for regional gardeners: She reviewed the reference questions received at the Miller Library over a five year period! Brilliant! While I haven't done the same exhaustive review of more recent questions to the library, I would suspect the list of today would be very similar, making this book still very relevant.

Three of the eight topics she found in her research explore some aspect of what Jan dubbed a "natural garden," specifically creating landscape plans that use native plants, attract wildlife and conserve water. She begins each topic with examples from local gardens, interviewing the owners and/or designers and validating the many approaches to reaching the same goal.

As with Jan's other books, both sides of your brain are exercised. This is the first of her books that makes significant use of photographs (by Linda Quartman Younker), and the images suit and expand the lyrical descriptive prose of the designs very well. Yet each garden is also summarized in a side box with practical elements like topography, soil, lighting, climate and the impact of surrounding properties; concluding each chapter are businesslike checklists to make sure you achieve your earlier inspirations.

Later chapters delve into the limitations of slopes or very small properties, and with creating special settings using hardscapes or water features. Again, she begins from a very personal perspective: "All gardeners follow different paths to their own, personal epiphanies—those moments of divine illumination... by adding the anarchic element of water to my garden, I was inviting a dash of divine chaos into my soul at the same time."

The only chapter in "Northwest Garden Style" that seems from a different era is the one on roses, as today this would most likely be replaced by an essay on kitchen gardens or something similar. Roses are not my favorite plants, but after reading the description of an informal rose garden in Portland, I had a new perspective. Here, "birds find a welcome in this rose garden year-round, where they can nest and forage in tall thickets, dine on choice aphids and slugs in summer, and pick over nutritious rosehips left on the branches in winter."

Gardening with Stone

This transforming of perspectives is Jan's greatest strength as a writer, and I think it is best illustrated in her final book, "Gardening with Stone" (1999). When I first flipped through the pages (again, with excellent photographs by Linda Quartman Younker), I thought that Jan had traveled throughout Europe, finding centuries-old examples of stonework. I was surprised, upon looking at the captions, that almost all of the gardens are in the United States, and many were not very old.

I realized, too, that this is not a book to flip through. It is best understood by allowing

Jan to lead you through at her pace and in her order. It begins with a review of various garden styles, from formal to natural, from Asian to English cottage gardens. After your attention is firmly fixed on the role stonework plays in these gardens, she shifts to habitats in stone, such as those found in fissures, screes, outcrops, and in wider settings such as a beach or in the desert. Each of these descriptions comes with a recommended list of plants.

Now the real fun begins. The use of stones as art, as tools, or as symbols of spiritual significance goes beyond the garden setting. Or does it? Jan addresses this with, "What significance do today's gardeners find in this legacy of using stone in the landscape for spiritual effects? As the following stone features illustrate, gardeners either adapt the traditions of earlier cultures to their own landscape designs or they carry the spirit, rather than their precise form, into modern pieces."

To finish, Jan features six gardens from across the country, clearly favorites of hers. Mostly beyond the reach of the home gardener, these are realized fantasies of long years or many resources or both. While the following statement was applied to a garden near Miami, it could be used for all, "Because of its sheer size and over-the-top opulence, Vizcaya holds few obvious lessons for the home gardener who contemplates adding a stone feature or two to the back garden, but it remains a compelling place of pilgrimage for those who relish its completely realized vision of stone-driven theatrics."

Jan traveled extensively outside the Pacific Northwest for this book, but throughout she keeps coming back here for examples, and it's fitting that she finishes at home with her last two gardens. The first, the Walker Rock Garden in West Seattle, faces an uncertain future at the time of this writing, but for Jan this later work of Milton Walker "...took on some of the fantastical qualities of structures by the Spanish architect Antonio Gaudi"—high praise, indeed.

Finally, we visit the Ohme Gardens near Wenatchee. Depicted on the cover of "Garden Touring," the garden is described as being like "a stage set for 'The Sound of Music.'" In "Gardening with Stone," the description is more thoughtful: ". . .Ohme Gardens stands as a quintessential example of mountainous, high-desert terrain, whose most characteristic natural features—stone outcrops, wide sloping meadows, and precipitous ravines—have been isolated, highlighted, and arranged to display their best design possibilities."

Summarizing "Gardening with Stone," and the blending of the inspirational and the practical

Backyard Jungles

An early example of Jan Kowalczewski Whitner's writing is found in a 1988 issue of the "Bulletin," in an article titled "Backyard Jungles." Long before the Tropicalismo garden design movement of the early 2000s, she was prompting a move away from the standard conifer-rhododendron garden to designs using plants that mimic the look of true tropicals, but won't turn to mush forever when winter comes.

How to do this? Jan explains that many well-known and perfectly hardy plants take on a tropical look with the right setting and choice of companion plants. She then audaciously states "Jungle Gardens are Practical" and proves her point with a list of plants that are low-maintenance, require little grooming, "...and provide the year-round 'bones' needed for strong garden design."

Several recent books have taken this theme and run with it, but Jan's article was a vanguard for achieving "a feeling of mystery and enclosure" with "luxuriant refuges in Northwest backyards by using familiar plants in imaginative combination." To read the whole article, visit the Miller Library's collection of historical periodicals.

that is found in all of Jan's writing, is the concluding sentence of the introduction: "Our focus is on those magical, metaphorical stone features that will spark the imagination, as well as on creative design solutions to common landscaping problems." ~

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